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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Bart F. Rice

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EXAMINER

AUGUSTIN, EVENS J

ART UNIT

PAPER NUMBER

3621

MAIL DATE

DELIVERY MODE

07/23/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 09/759,425	Applicant(s) RICE, BART F.	
	Examiner EVENS J. AUGUSTIN	Art Unit 3621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 April 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 78-104 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 78-104 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>02/15/2008</u> | 6) <input type="checkbox"/> Other: _____ |

Detailed Action

Acknowledgment

1. This is in response to an amendment filed on 16 April 2008. Claims 60-77 have been cancelled. Claims 78-104 have been added and are pending. Claims 78-104 have been examined.

Specification Objections

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Specifically, the claims contain the aspect of "modulating a plurality of portions of stored information with corresponding selected subsets of the stored set onto a sinusoidal electromagnetic carrier, wherein the subsets correspond to nodes in a multi-node communication network, and further wherein at least one subset of the selected subsets contains a plurality of the binary spreading- code sequences ". The USPTO was not able to find support for these claim languages in the specification. The rules of the PTO require that application claims must "conform to the invention as set forth in the remainder of the specification and the terms and phrases used in the claims must find clear support or antecedent basis in the description so that the meaning of the terms in the claims may be ascertainable by reference to the description." 37 CFR 1.75(d)(1). Correction is required.

Claim Rejections - 35 USC § 112 - 1st Paragraph

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it

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pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 78-104 rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claims contain subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Specifically, claim 78 recite the term "modulating a plurality of portions of stored information with corresponding selected subsets of the stored set onto a sinusoidal electromagnetic carrier, wherein the subsets correspond to nodes in a multi-node communication network, and further wherein at least one subset of the selected subsets contains a plurality of the binary spreading- code sequences ". The USPTO was not able to find support for these claim languages in the specification, and are therefore considered new matter.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States. . . .

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this

subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 78-104 are rejected under 35 U.S.C. 102(b) as being anticipated by Lee (U.S. 4607375).
6. As per claims 78-104, Lee discloses an invention comprising of the following:
 - A. ("**storing a set of binary spreading-code sequences at a first device**") – storing portions of code sequence (Column 2 (C), Lines (L) 39-40), the code sequence being selected to spread the binary signal over as large a bandwidth as possible (C1, L43-45);
 - B. ("**modulating a plurality of portions of stored information with corresponding selected subsets of the stored set onto a sinusoidal electromagnetic carrier**") – Modulating waveform by portions of the code sequence (emphasis on the plurality) (C1, L64-65), to thereby provide a frequency hopping carrier frequency for the transmitted portions of the PN sequence and the transmitted complements of the portions of the PN sequences (C2, L24-27) – The signal is an RF (Radio Frequency) signal (C12, L3-4) – Radio signals are part of the electromagnetic spectrum (see U.S. 4423419, C1, L46-55 Note: this reference is to show that radio signals are part of the electromagnetic wave spectrum);
 - C. ("**wherein the subsets correspond to nodes in a multi-node communication network**") – Each subset correspond to a node (device) (figure 8);
 - D. ("**at least one subset of the selected subsets contains a plurality of the binary spreading- code sequences**") -- Each information bit represent a sequence (C5,

- L18-19) - at least one subset of the selected subsets contains a plurality of the binary spreading- code sequences (C6, L56-58);
- E. ("**assigning the plurality of portions of stored information to the corresponding subsets of the stored set**") – (Figure 8);
- F. ("**plurality of portions of stored information are blocks of bits**") -- sequence can be divided into N sections or portions and each section or portion represents one information bit (C6, L56-58);
- G. ("**blocks of bits are of equal fixed length**") – The codes are of a given length (C5, L30-40);
- H. ("**the blocks of bits are simultaneously transmitted from the first device to the corresponding node**") –(See figure 8);
- I. ("**generating the set of binary spreading-code sequences corresponding to nodes in the multi-node communication network at the first device**") -- Each subset correspond to a node (device) (figure 8);
- J. ("**assigning the plurality of portions of stored information to the corresponding subsets of the stored set**") -- (Figure 8);
- K. ("**stored set comprises combined contents of specified stages of a first binary shift register and a second binary shift register**") -- a pair of shift registers coupled to the second memory to store the received portions of the PN sequences and the received complement of the portions of the PN sequences (C2, L 33-36);
- L. ("**each of the corresponding selected subsets of the stored set comprises two binary spreading-code sequences**") -- bit stream is divided into half (C11, L34-35);

M. ("two binary sequences are transmitted simultaneously by modulating a first binary sequence onto a first sinusoidal electromagnetic carrier signal, and by modulating a second binary sequence onto a second sinusoidal electromagnetic carrier signal, wherein the first carrier signal and the second carrier signal have the same frequency and are out of phase with respect to each other") --

("portions of the PN sequence are transmitted at a first carrier frequency and the next portions of the PN sequences are transmitted at a second carrier frequency (C7, L15-20) – signals are 90 degrees out of phase (C9, L64);

N. With regard to claims 89-91 and 102-104, the prior art shows ("166 MHz bandwidth is divided into eight 20.7 MHz sub-bands using eight carrier frequencies, namely, 200 MHz, 400 MHz, 600 MHz, 800 MHz, 1 GHz, 1.2 GHz, 1.4 GHz and 1.6 GHz to carry these eight sub-bands, one for each carrier. The implementation of such an arrangement actually consists of eight single spread spectrum (C10, L50-56);

O. Modulator – (C1, L60, fig. 3, item 10);

Response to Arguments

7. Applicant's arguments with respect to claims 1-35 have been considered but are moot in view of the new grounds of rejection, necessitated by applicant's amendment.

Conclusion

8. **THIS ACTION IS MADE FINAL.** Any new ground(s) of rejection is due to the applicant's amendment. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).
9. A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.
10. In determining patentability of an invention over the prior art, the USPTO has considered all claimed limitations, and interpreted as broadly as their terms reasonably allow. Additionally, all words in the claims have been considered in judging the patentability of the claims against the prior art.

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11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to EVENS J. AUGUSTIN whose telephone number is 571-272-6860. The examiner can normally be reached on 10am - 6pm M-F.
12. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Fischer can be reached on (571)272-6779.

/Evens J. Augustin/

Evens J. Augustin

July 24, 2008

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